AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-22 (Cancelled).

23. (Currently Amended) A method for evaluating traffic dispersion associated with at least one exchange in a communications network, the exchange being arranged for applying a set of routing rules for selectively allotting incoming traffic directed toward a given destination to a plurality of links, comprising:

incrementally generating traffic quantums representative of said traffic at an evaluation module independent from a plurality of exchanges and nodes of the communications network, based on receiving a measured traffic volume of said incoming traffic directed towards a given destination as an input directly from the at least one exchange; and

producing, at the evaluation module, a distribution of said traffic quantums over said links in said plurality according to said set of routing rules, the distribution thus obtained being statistically representative of the dispersion of said incoming traffic over said plurality of links at said exchange.

24. (Previously Presented) The method of claim 23, comprising:

measuring the volume of said incoming traffic directed toward said given destination; and

generating said traffic quantums by subdividing said measured traffic volume by a given number of loop steps.

25. (Previously Presented) The method of claim 23, comprising:

determining, for each link in said plurality, a number of call attempts and a corresponding number of seizures;

if said number of call attempts equals said number of seizures, setting a load limit for applying said set of routing rules for said link equal to the number of circuits available in the link; and

if said number of call attempts is greater than said respective number of seizures, setting said load limit equal to the outgoing traffic volume measured by the exchange on said link.

26. (Previously Presented) The method of claim 25, comprising:

accepting said traffic quantums to be assigned to a given link only if the sum of all the traffic portions assigned to said link is smaller than said load limit set for said link,

otherwise selecting a next choice in said set of routing rules.

27. (Previously Presented) The method of claim 25, comprising:

selecting within said network at least a first exchange receiving traffic from at least a second and a third exchange; and

obtaining, based on respective distributions of said quantums of traffic generated at said second and third exchanges, traffic dispersion data indicative of:

the traffic (TV_{mxp}) incoming into said first exchange from said second exchange; and

the traffic (TV_{nxr}) incoming into said first exchange from said third exchange.

28. (Previously Presented) The method of claim 27, comprising obtaining, based on respective distributions of said quantums of traffic, distribution data representative of the traffic toward a given destination generated at said first exchange different from traffic (TV_{mxp}, TV_{nxr}) incoming from said second and third exchanges.

29. (Previously Presented) The method of claim 27, comprising:

partitioning the traffic outgoing from said first exchange based on the respective routing rules into:

a first group, including traffic components coming from said second exchange using a given subset of links in said set of routing rules; and

a second group, including traffic components coming from said third exchange using the whole set of links in said set of routing rules.

30. (Previously Presented) The method of claim 29, comprising:

analysing the traffic volume (TV_{kxy}) directed toward a given destination within said network and carried by a respective link coming out of said first exchange; and

determining a first component of said traffic volume (TV_{kxy}) coming from said second exchange as

$$TV_{kxy,\,m} = \frac{TV_{mxp} \times TV_{kxy}}{\sum_{\delta}^{\forall CG \in \Delta} TV_{kx\delta}}$$

wherein Δ is the subset of links used by a current routing rule in said first exchange.

31. (Previously Presented) The method of claim 30, comprising:

analysing the traffic volume (TV_{kxy}) directed toward a given destination within said network and carried by a respective link coming out of said first exchange; and

determining a first component of said traffic volume (TV_{kxy}) coming from said third exchange as

$$TV_{kxy,\,n} = \frac{TV_{nxr} \times (TV_{kxy} - TV_{kxy,\,A})}{\sum_{\delta}^{\forall CG \in \Phi} (TV_{kx\delta} - TV_{kx\delta,\,A})}$$

wherein $TV_{kxy,\,A} = \sum_{\alpha}^{\forall \alpha \in A} TV_{kxy,\,\alpha}$ is the sum of all the results obtained for said second exchange for all the links used by said routing rule and Φ is the whole set of links used by a current routing rule in said first exchange.

32. (Previously Presented) The method of claim 23, wherein said incrementally generating traffic quantums representative of said traffic and producing a distribution of said traffic quantums are performed in the absence of interference with operation of said communications network.

33. (Currently Amended) A system for evaluating traffic dispersion associated with at least one exchange in a communications network, the exchange being arranged for applying a set of routing rules for selectively allotting incoming traffic directed toward a given destination to a plurality of links, comprising:

an evaluation module independent from a plurality of exchanges and nodes of the communications network, wherein the evaluation module incrementally generates traffic quantums representative of said traffic, based on receiving a measured traffic volume of said incoming traffic directed towards a given destination as an input directly from the at least one exchange and

produces a distribution of said traffic quantums over said links in said plurality according to said set of routing rules, the distribution thus obtained being statistically representative of the dispersion of said incoming traffic over said plurality of links at said exchange.

34. (Previously Presented) The system of claim 33, comprising a measuring module for measuring the volume of said incoming traffic directed toward said given destination, said evaluation module being configured for generating said traffic quantums by subdividing the traffic volume measured by said measuring module by a given number of loop steps.

35. (Previously Presented) The system of claim 33, comprising:

a measuring module configured for determining, for each link in said plurality, a number of call attempts and a corresponding number of seizures; and

a routing rules generating module for setting a load limit for applying said set of routing rules, said routing rules generating module being configured for:

if said number of call attempts equals said number of seizures, setting a load limit for applying said set of routing rules for said link equal to the number of circuits available in the link, and

if said number of call attempts is greater than said respective number of seizures, setting said load limit equal to the outgoing traffic volume measured by said measuring module on said link.

36. (Previously Presented) The system of claim 33, comprising a routing rules generating module configured for:

accepting said traffic quantums to be assigned to a given link only if the sum of all the traffic portions assigned to said link is smaller than said load limit set for said link,

otherwise selecting a next choice in said set of routing rules.

37. (Previously Presented) The system of claim 33, for use in a network comprising at least a first exchange receiving traffic from at least a second and a third exchange, comprising at least one said evaluation module configured for:

obtaining, based on respective distributions of said quantums of traffic generated at said second and third exchanges, traffic dispersion data indicative of:

the traffic (TV_{mxp}) incoming into said first exchange from said second exchange; and

the traffic (TV_{nxr}) incoming into said first exchange from said third exchange.

38. (Previously Presented) The system of claim 37, wherein said at least one evaluation module is configured for obtaining, based on respective distributions of said quantums of traffic, distribution data representative of the traffic toward a given destination generated at said first exchange different from traffic (TV_{mxp}, TV_{nxr}) incoming from said second and third exchanges.

39. (Previously Presented) The system of claim 37, wherein said evaluation module is configured for:

partitioning the traffic outgoing from said first exchange based on the respective routing rules into:

a first group, including traffic components coming from said second exchange using a given subset of links in said set of routing rules; and

a second group, including traffic components coming from said third exchange using the whole set of links in said set of routing rules.

40. (Previously Presented) The system of claim 39, wherein said at least one valuation module is configured for:

analysing the traffic volume (TV_{kxy}) directed toward a given destination within said network and carried by a respective link coming out of said first exchange; and

determining a first component of said traffic volume (TV_{kxy}) coming from said second exchange as

$$TV_{kxy,m} = \frac{TV_{mxp} \times TV_{kxy}}{\sum_{\delta}^{\forall CG \in \Lambda} TV_{kx\delta}}$$

wherein Δ is the subset of links used by a current routing rule in said first exchange.

41. (Previously Presented) The system of claim 40, wherein said evaluation module is configured for:

analysing the traffic volume (TV_{kxy}) directed toward a given destination within said network and carried by a respective link coming out of said first exchange; and

determining a first component of said traffic volume (TV_{kxy}) coming from said third exchange as

$$TV_{kxy,n} = \frac{TV_{nxr} \times (TV_{kxy} - TV_{kxy,\Lambda})}{\sum_{\delta}^{\forall CG \in \Phi} (TV_{kx\delta} - TV_{kx\delta,\Lambda})}$$

wherein $TV_{kxy,\Lambda} = \sum_{\alpha}^{\forall \alpha \in \Lambda} TV_{kxy,\alpha}$ is the sum of all the results obtained for said second exchange for all the links used by said routing rule and Φ is the whole set of links used by a current routing rule in said first exchange.

42. (Previously Presented) The system of claim 33, wherein said evaluation module is configured for performing steps of incrementally generating traffic quantums representative of said traffic and producing a distribution of said traffic quantums in the absence of interference with operation of said communications network.

43. (Previously Presented) A communication network including a plurality of exchanges, comprising a system according to any one of claims 33-42.

44. (Previously Presented) A computer-readable medium storing instructions for execution by a processing system the instructions comprising software code portions that when executed by the processing system perform the method of any one of claims 23-32.